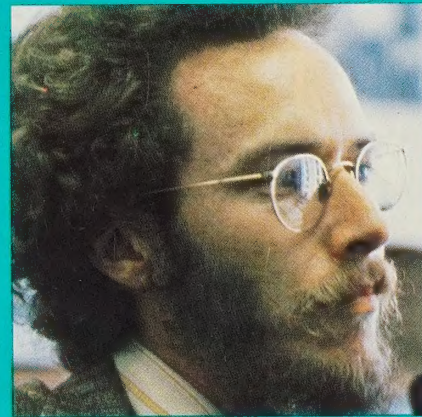


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The Department of COMMUNICATIONS



Government of Canada
Department of Communications

Gouvernement du Canada
Ministère des Communications



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The Department of **COMMUNICATIONS**

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The Department of Communications

Helping Canadians keep in touch

Arts and culture

Strengthening national bonds

Information technologies

Preparing for the future



Canadian technology

Leading the way

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Canada plays a leading role

Satellites

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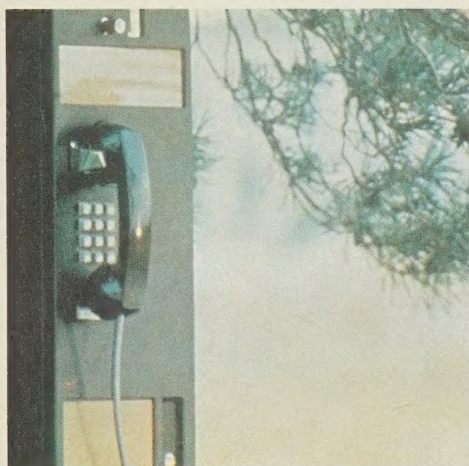
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DOC milestones

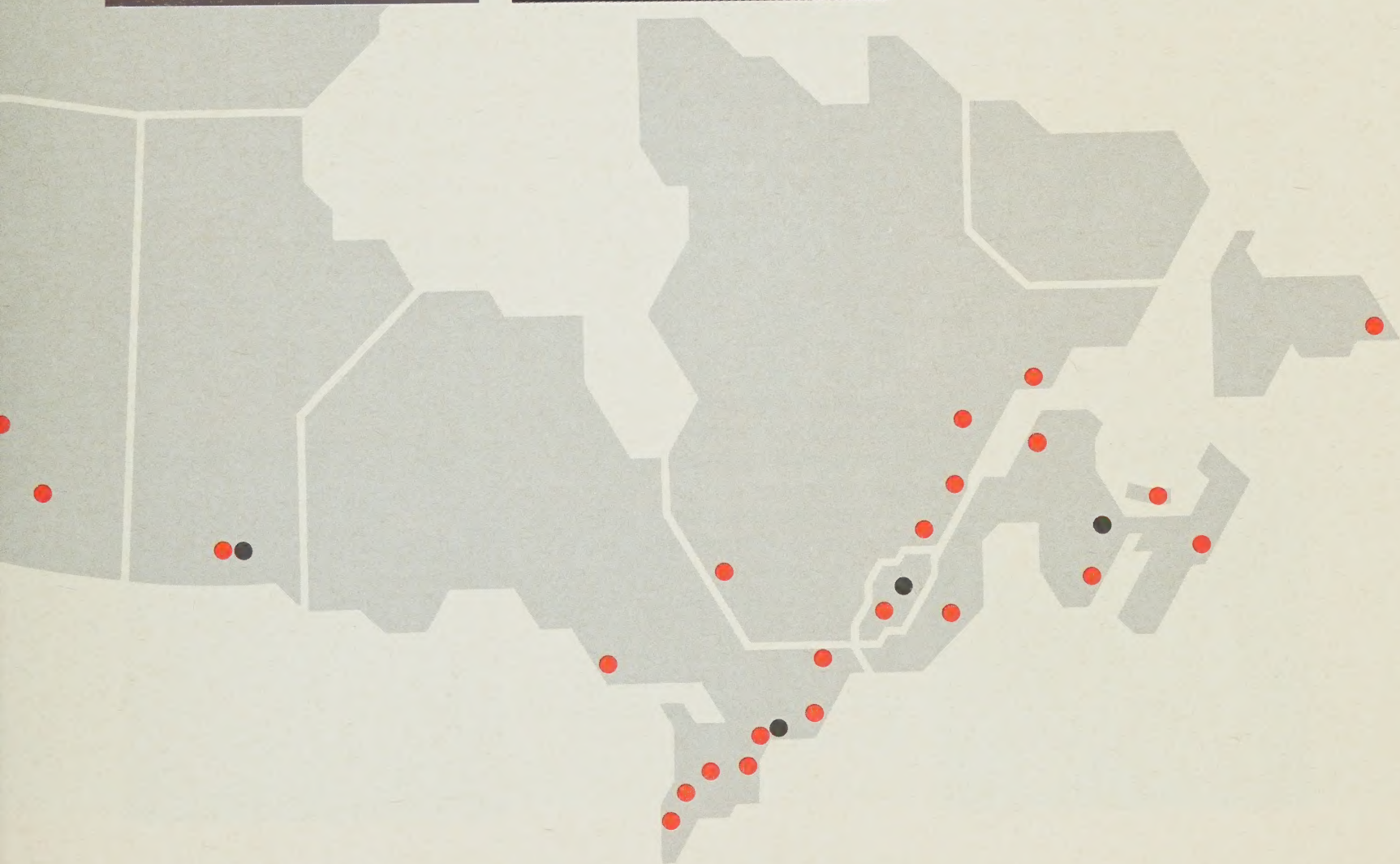


The Department of Communications

Helping Canadians keep in touch

Our vast size and extreme climate make communications in Canada a special challenge. Throughout the country, no matter where you live, the Department of Communications is working to help keep Canadians in touch with each other, and with the world. Established in 1969, the department encourages the growth of national and international telecommunications and broadcasting networks and facilities, anticipates and plans for change by conducting research into communications and space technology, and manages and regulates the airwaves. In 1980, the department was given responsibility for the administration of the federal government's arts and culture programs and the development of its cultural policies. This marriage between technology and culture reflects the central role of the communications media in permitting Canadians to share and enjoy creative and cultural experiences.





Arts and culture

Strengthening national bonds

Across the country, thousands of artists, writers, performers, publishers, heritage organizations and cultural institutions benefit each year from the cultural policies, programs and activities of the Department of Communications and the federal cultural agencies.

The department itself operates a number of programs to provide financial support, resources and services to Canadian cultural organizations and industries, as well as heritage institutions, and in this way supports and promotes the work of Canadian creators, whether these be painters, sculptors, actors, filmmakers, writers, musicians or composers. These programs include the Special Program of Cultural Initiatives, the Canadian Book Publishing Development Program, the Canadian Film and Videotape Certification Office, the Movable Cultural Property Secretariat and the Film Festivals Bureau.



The department also develops policies to foster new economic and social opportunities for the expression and display of Canadian creativity and to ensure that advances in communications technologies benefit Canada's artistic and cultural communities. Since the publication in November 1982 of the report of the Federal Cultural Policy Review Committee, the first comprehensive review of federal cultural policy in 30 years, some of these policies have been under intensive re-examination within the department.

The first result of that re-examination has been a new Broadcasting Strategy for Canada, which is intended to increase Canadians' viewing choice and ensure that they can receive a solid core of attractive high-quality Canadian programming on television. Existing cultural support programs, such as the Special Program of Cultural Initiatives, have also been revised and renewed to meet the changing needs of Canadian cultural institutions.

New policies are also being developed to strengthen Canada's cultural industries – the film, sound recording, and book and periodical publishing industries, as well as the craft industry. These new policies will recognize that Canadian cultural achievements can also be economically important.

In planning for the future, the department must also address the concerns of the individual creator, as well as many of the non-profit organizations in which he or she finds employment. New policies are now being formulated on questions such as the employment and tax status of the individual artist.

The department is also studying new ways to encourage the preservation and accessibility to Canadians of Canada's heritage in museums, galleries, libraries and archives at the local, provincial and national levels.

The Minister of Communications reports to Parliament on behalf of 11 federal cultural boards and agencies which have, for many years now, played a central role in Canadian cultural development. The agencies are now reviewing their own activities, in co-operation with the department, in light of the findings of the Federal Cultural Policy Review Committee.

The federal cultural boards and agencies include:

- The Canada Council, which provides support to performing arts organizations, artists, writers and many other creators.
- The Canadian Broadcasting Corporation, which provides national television and radio services in both official languages and operates Radio Canada International, which broadcasts news and information about Canada to listeners around the world.
- The National Film Board, which supports the work of independent film-makers and produces its own films on a wide range of subjects.
- The Canadian Film Development Corporation, which provides financial assistance and marketing support to film and television producers.



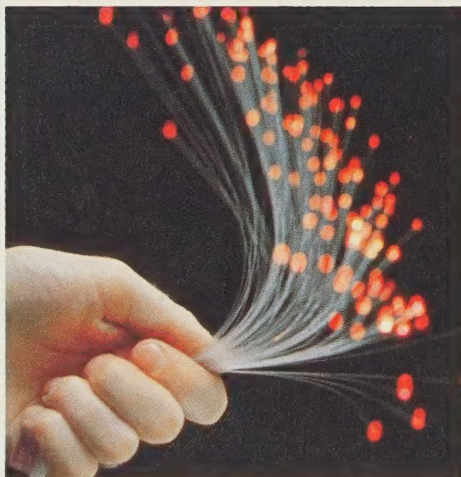
- The National Arts Centre, which showcases Canadian achievements in the performing arts, as well as the best the world has to offer.
- The Social Sciences and Humanities Research Council, which supports scholarly research in the social sciences and humanities.
- The National Museums Corporation, which assists in the development of museums and galleries across the country and is responsible for the National Gallery of Canada, the National Museum of Man, the National Museum of Natural Sciences and the National Museum of Science and Technology.
- The National Library of Canada, which provides technical support to libraries across the country and maintains a national collection of books, new and old, rare and readily available.
- The Public Archives of Canada, which maintains a national archival collection of documents, photographs and recordings and is responsible for the archives of the government of Canada.
- The Canadian Cultural Property Export Review Board, which certifies for income tax purposes as important to Canada's heritage cultural objects given or sold to designated Canadian institutions.

The Minister of Communications is also responsible to Parliament for the Canadian Radio-television and Telecommunications Commission (CRTC), which regulates broadcasters, cable services and national telecommunications services.

Information technologies

Preparing for the future

New communications technology is rapidly changing the way we work and live. The Department of Communications conducts research, encourages industrial development, and develops policies to address economic, social and cultural effects of new technology. One example of this comprehensive approach is the department's Telidon program. Telidon is the advanced videotex, or electronic information system, developed in 1978 at the department's Communications Research Centre by a team of government researchers working closely with private industry. Telidon can convert the home television set into a powerful but easy to use information tool. You can shop, pay bills, play games, take courses or conduct business transactions. With a decoder attached to a regular television set and telephone line, users can call up information from computer data bases across the

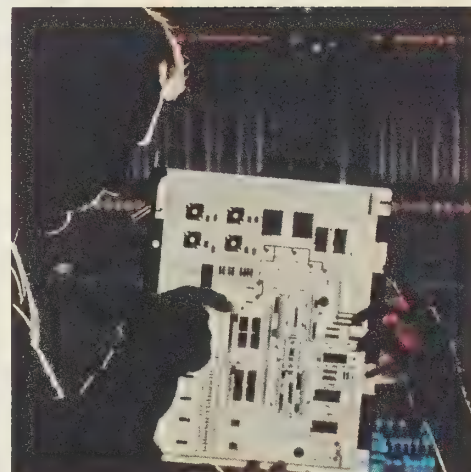
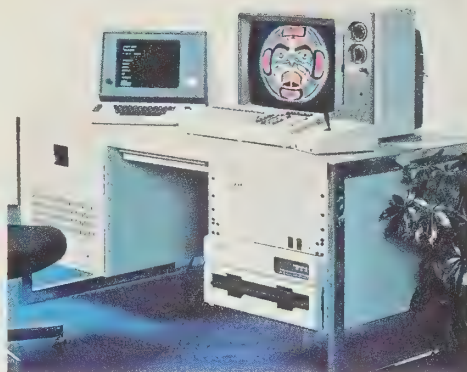


continent. The Department of Communications worked with private companies to make this technology available to industry, to promote Telidon as a national and international standard, and to assist in the development of more than 60 Telidon projects across Canada. Thanks to these initiatives, five Canadian companies now manufacture Telidon equipment and dozens of companies are involved in developing Telidon computer software and services for sale across Canada and around the world. Canada's Telidon system has been endorsed as a world standard, and in June 1982, was officially adopted as the main element of the North American standard for videotex systems. Today, Telidon systems have been sold to companies in Australia, Britain, Japan, the United States, Switzerland and Venezuela.

The department also conducts research into new uses of optical fibres, the hair-thin strands of glass that carry information in the form of light. Fibre optics technology is a highly reliable and efficient way to bring more and better telecommunications and broadcasting services to homes and businesses. The department has helped sponsor a number of important field trials, including the world's first fibre optics trial in a rural setting, which delivers Telidon, telephone, television, radio and other services to homes in Elie and St. Eustache, Manitoba.

Today, more than half of all Canadian workers have jobs that require the handling of information. As a result, electronic information systems are more and more important to the competitive position of Canadian business and industry. In offices, especially, new systems are being used to help workers handle information more efficiently and effectively. To help Canadian industry take advantage of the growing market for "Office of the Future" technology, the department's Office Communications Systems program encourages Canadian

companies to combine their strengths to develop new products and field test new systems in a working environment. The department has also sponsored the establishment of the Office Communications Systems Research Centre in Laval, Quebec to conduct research on software, content and design of electronic information systems. Many of these technologies will be showcased in Montreal's Palais des Congrès convention centre which, with the assistance of the Department of Communications, will use advanced office communications equipment in combination with Telidon terminals to automate accounting, registration and billing procedures within the Palais des Congrès and provide business and tourist information for conventioners.





Canadian technology

Leading the way

Canada is a world leader in the development of telecommunications systems. Thanks to the policies and programs of the federal government, Canada has developed a thriving telecommunications equipment industry that supplies 90 per cent of the country's own needs and an increasing number of products for international markets. We are also developing new industrial strengths in the field of micro-computers, computer software and satellite systems. Department of Communications' scientists and engineers are continuing research into new technologies that can be transferred to private industry for the production lines of the 1980s. Research is being done in areas such as Talking Telidon, mobile communications terminals for ships, planes and private cars, computer systems that run on light instead of electricity, new satellite communications services, and more...



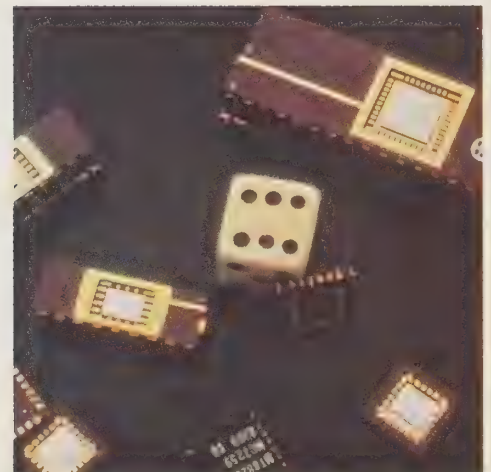
Future programs, and in the development of special policies for the disabled and disadvantaged, departmental officials work with industry and individuals from all walks of life to respond to special needs and to address concerns about safety and the impact of technology upon the quality of working life.

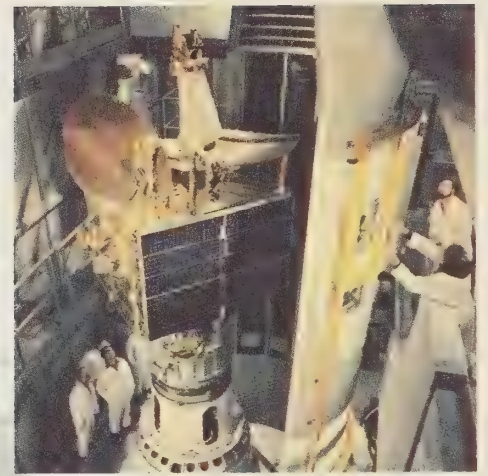
Parallel to this research into hardware is the study of the human impacts of technology. Here, departmental analysts are working to ensure that these new systems respond to Canadians' needs and wants, and that changes in our work and leisure habits are positive. Through its Telidon and Office of the

International communications

Canada plays a leading role

Canada plays a leading role in such international organizations as the International Telecommunications Union (ITU), INTELSAT and INMARSAT. The Department of Communications is an active and important member of the ITU's Administrative Council and participates with Canadian industry in the work of the ITU's international consultative committees, (CCIR and CCITT) and in ITU world and regional conferences. These diverse international activities enable the department to promote Canadian industrial and manufacturing interests in the international telecommunications environment and ensure Canada's continuing role as a world leader in telecommunications.





Satellites

Keeping Canadians in touch

Canada has a long history of success in the use of satellites, first for scientific research, and later for communications, weather reporting, remote sensing, search and rescue and other uses. In 1962, Canada became the third nation to enter the space age with its first satellite, Alouette. Since then, Canada has launched 11 satellites, including the latest, Anik C, which can handle 16 radio and TV channels.

Thanks to the early research by the Department of Communications, Canadians in all parts of the country now have a wide range of new services, from improved telephone services to pay-TV. Those in remote areas enjoy satellite-delivered radio, TV, tele-education (which allows teachers and students in schools thousands of kilometres apart to share ideas) and telemedicine (which allows medical experts to supervise the treatment of patients in distant communities). Starting in the early

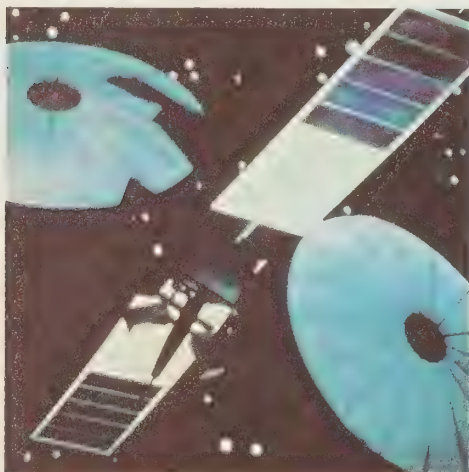
1970s, the department sponsored the world's first experiments with direct broadcasting satellites, which will soon bring radio and TV signals to homes equipped with earth stations that are much smaller and less expensive than the dishes required for most satellite signals today.

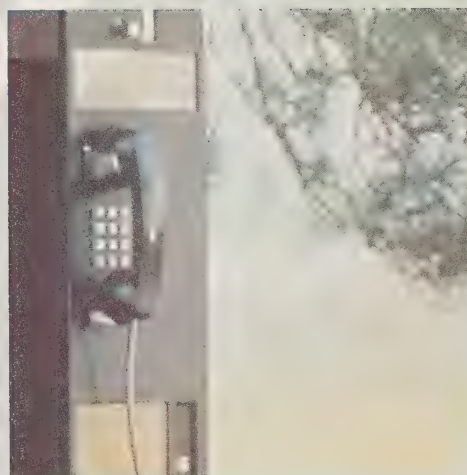
Vital to the success of Canada's space program is the work of the scientists at the department's Communications Research Centre, where the government has built the David Florida Laboratory, one of the few facilities in the world where complete satellites and aerospace systems can be tested in a space-like environment. The Canadarm, the remote manipulator system used on the U.S. space shuttles, was tested at the David Florida Laboratory to ensure that it could withstand the extreme temperatures of space. Canada's Anik satellites are tested here, and the European Space Agency's L-SAT, or large satellite, will also undergo final pre-flight testing at the David Florida Lab.

The search for new ways to serve Canadians through space technology continues. Studies are now underway on a mobile communications satellite (MSAT) system which would serve mobile terminals in cars, airplanes and ships anywhere in Canada without restriction on operating distance. The department has also been instrumental in organizing an international satellite search and rescue network using



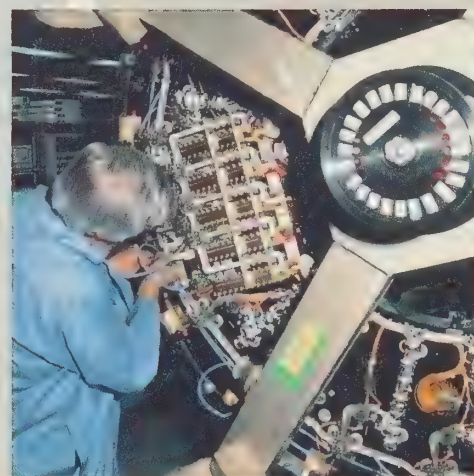
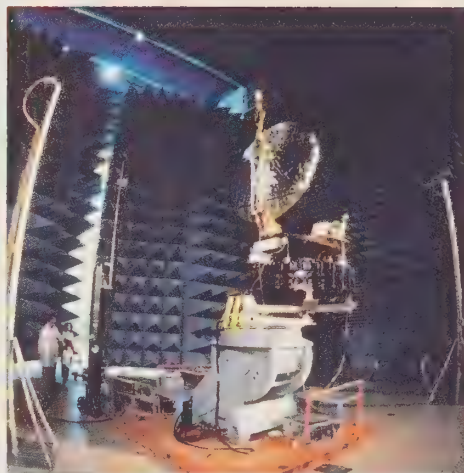
U.S. and Soviet satellites. A number of lives have already been saved by this system, which relies heavily on Canadian communications equipment. The department is also helping to design a new satellite called RADARSAT which could detect oil spills and icebergs through cloud cover, or map geological structures through foliage.

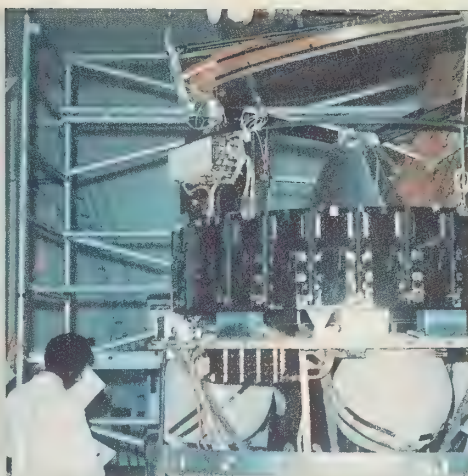




Building a Canadian space industry

In addition to its own research activities, the Department of Communications supports a large number of university research projects and helps to promote the growth of Canada's aerospace industry, which now provides more than 3,000 high technology jobs for Canadians. This support has made Canada one of the few nations in the world able to supply a complete communications system to international customers on a commercial basis. In 1982, for example, Brazil announced that it would buy a full communications satellite system, including two spacecraft and related ground control equipment and services, from Canadian suppliers. And in 1983, a Montreal company signed an agreement for more than \$60 million worth of development work on the European Space Agency's L-SAT project.





Radio and television

Bringing new services to Canadians

Every day, Canadians use a variety of broadcast services, including the General Radio Service (GRS), (sometimes called citizens' band), marine and mobile radio, AM, FM and shortwave radio, television and radar. All of these signals travel across the skies in a multitude of diverse and conflicting patterns. The Department of Communications manages the airwaves to prevent overcrowding and traffic jams, and to ensure that a high quality of service is provided, especially for emergency services. Licences are issued to qualified operators and traffic is controlled by regulations developed by the department.

Each year, more than one million radio licences are issued, including permits for GRS radio owners, operators of microwave systems, and radio and television broadcasters. Licencing helps prevent signal overlap which can cause interference. The department works closely with other levels of government and with private companies to develop national standards for telecommunications and broadcasting equipment. The department tests appliances and other electrical equipment to ensure that they do not cause radio interference.





A new broadcasting policy for the eighties

In the rapidly changing broadcasting environment caused by new technologies, a major role for the department is the development of policies to ensure the Canadian broadcasting system can adapt. In March 1983, the Minister of Communications announced the first phase of the federal government's new broadcasting policy for Canada, with increased choice for Canadian viewers and a stronger Canadian television production industry as its key thrusts. The new policy sees cable as the prime vehicle for bringing Canadians more and better television programming and non-programming services such as Telidon. Cable will be allowed to carry a wide range of new television channels and special services.

The policy also recognizes the important role of satellite services, especially in isolated areas where cable systems are not practical. For this reason, individual Canadians are no longer required to obtain a licence to operate their own satellite earth stations for personal use. Certain commercial establishments, such as bars and taverns, which display but do not distribute satellite signals, may also operate earth stations without licences. Licensing requirements for Master Antenna Television Systems (MATV) for condominiums, apartments and other buildings are also being changed, and in some cases, may be eliminated, provided the installations do not pose a threat to the health of competing cable television operations.

In addition, a new Canadian Broadcast Program Development Fund has been created to support the production of high quality Canadian entertainment, drama and children's programming for the Canadian and world markets. The fund, administered by the Canadian Film Development Corporation, will have an initial budget of \$35 million in its first year and rising to \$60 million in its fifth year. Each dollar from the fund must be matched by two from other sources. Over the first five years, this leverage factor will contribute more than \$1 billion to the production of Canadian television programs.

To improve broadcasting services to native communities in Northern Canada, the Department of Communications also developed in 1983 a new Northern Broadcasting Policy, which includes a \$40.3 million, four-year Northern Native Broadcast Access Program to be administered by the Secretary of State.





DOC milestones

- 1969 • Responsibility for communications is transferred from the Post Office to the newly formed Department of Communications.
 - Telesat Canada is created as an independent organization to own and operate Canada's domestic commercial communications satellite system.
- 1971 • ISIS 2, the ionospheric research satellite, is launched.
 - DOC opens regional offices in Moncton, Montreal, Toronto, Winnipeg and Vancouver.
- 1972 • Anik A1 is launched, making Canada the first country in the world with a domestic commercial geostationary communications satellite service.
- 1974 • The role of the Canadian Radio-television and Telecommunications Commission is expanded to include responsibility for telecommunications as well as broadcasting.
- 1976 • Hermes, the high-powered communications satellite is launched, allowing for the world's first experiments in direct broadcasting via satellite.
- 1977 • Experiments in telemedicine and tele-education are carried out via Hermes communications satellite.
 - DOC helps sponsor a major fibre optics trial in London, Ontario.
- 1978 • Telidon is developed at DOC's Communications Research Centre.
- 1979 • DOC transfers advanced mobile radio data system (MRDS) for use by city police in Vancouver, British Columbia.
 - DOC participates in major fibre optics trial in Elie, Manitoba
 - A wide range of experimental services are offered via Anik B satellite, including health care, educational broadcasting services, community and government information, TV programs and data services.
 - Canada is first country to provide earth stations to private homes to test direct broadcast services.
- 1980 • Canada helps test feasibility of SARSAT satellite search and rescue system.
 - DOC given responsibility for federal arts and culture programs.
 - Inauguration of expanded David Florida Laboratory for design and testing of satellites and aerospace equipment.
 - DOC's Office Communications System program is created to promote the production of Canadian electronic office products and services.
- 1982 • Telidon is adopted by leading computer, communications and electronics firms as the main element of North American standard for videotex systems.

- 1983 • DOC publishes new national broadcasting strategy.
- DOC sponsors a wide range of activities for World Communications Year.
 - Launch of Project Iris, the CBC's national Telidon teletext trial, sponsored by DOC.

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